

DEPARTMENT OF THE AIR FORCE  
TECHNICAL ORDER

TO 31P1-4-108-555  
DATA CODE: 3117863  
15 May 1997  
Rescission date: 31 December 1998

**RETROFIT EXPANSION OF NARROWBAND  
COMMUNICATIONS PORTS, RPG UNIT UD22, TO ADD  
ADVANCED WEATHER INTERACTIVE PROCESSING  
SYSTEM (AWIPS); WSR-88D DOPPLER  
METEOROLOGICAL RADAR**

**NOTE**

Military Commanders are responsible for bringing this technical order to the attention of all maintenance personnel cleared for access of affected system.

**1. APPLICATION.**

1.1 Identification. This TCTO is applicable to the following WSR-88D RPG sites:

Minot AFB, ND	Ft Drum, NY	Cannon AFB, NM
Laughlin AFB, TX	Columbus AFB, MS	Dyess AFB, TX
Robins AFB, GA	Maxwell AFB, AL	Eglin AFB, FL
Ft Hood, TX	Vandenberg AFB, CA	Beale AFB, CA
Altus AFB, OK	Andersen AFB, GU	Dover AFB, DE
Ft Campbell, KY	Ft Polk, LA	Ft Rucker, AL
Holloman AFB, NM	Moody AFB, GA	Edwards AFB, CA
Vance AFB, OK		

1.2 Kit Applicability by Model and Serial Number. Not applicable.

1.3 Proofing. Kit proofing was successfully accomplished at Jacksonville, Florida, on July 8, 1997.

**2. PURPOSE.**

The purpose of this Routine TCTO is to expand narrowband communications ports to add AWIPS at selected sites. This will involve adding a combination of a Codex Modulus 21 modem expansion rack, Codex 3263 dedicated modems, Formation VME narrowband cards, and Datapatch RJ11-12-4 patch panels.

**Distribution Statement A** - Approved for public release; distribution is unlimited.

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The authority for this TCTO is OSF ECP F0009R03C1.

### 3. WHEN TO BE ACCOMPLISHED.

Not later than 60 days after receipt of this TCTO and kit(s). Failure to accomplish the work by expiration of compliance period or 60 days prior to rescission date will be justification for withdrawing the affected system from service until compliance is accomplished.

### 4. BY WHOM TO BE ACCOMPLISHED.

Organizational level personnel will accomplish this modification.

### 5. WHAT IS REQUIRED.

#### 5.1 Supply-Information and Requirements.

5.1.1 Kits/Parts/Materials Required. The following parts compose the kits for this modification.  
***The OSF Logistics Section will direct ship the required kit(s) to the NEXRAD maintenance facility at no cost.***

Kits and kit contents: Verifying and labeling kits is suggested prior to initiating modification.

<u>A</u>	<u>C</u>	<u>D</u>	<u>F</u>	<u>G</u>	<u>Nomenclature</u>	<u>Part No.</u>	<u>NSN</u>
1	-	1	-	-	Modem, Dedicated	1219739-202	5895-01-377-7105
1	-	-	-	-	Cable Assembly	1221203-530	5995-01-387-3817
-	1	-	-	-	VME Narrowband Bd	1222421-204	5998-01-397-8290
-	1	-	-	-	VME 4 to 1 Cable	1222423-302	5995-01-417-4640
1	-	1	-	-	Label, Cable, (sheet)	SLSH-2015-5	7690-01-049-1770
1	-	1	-	-	Tiewraps	MS3367-2-9	5975-00-156-3253
-	-	1	-	-	Cable Assembly	1222302-307	5995-01-407-2893
2	-	2	-	-	Arrester, Electrical	COHP-150	5920-01-390-1340
-	-	-	1	-	Rack W/Power Supply	80400	5975-01-389-4415
-	-	-	1	-	Locator Plate, (A2)	1214845-202	9905-01-417-1917
-	-	-	-	1	Patch Panel, Dedicated	1213826-201	5805-01-358-4488
-	-	-	-	1	Cable Assy. (22/122W22)	1214790-304	5995-01-440-7556
-	-	-	-	1	Cable Assy. (22/122W21)	1214789-307	5995-01-407-2894
-	-	-	-	1	Locator Plate, (A13)	1214845-213	9905-01-440-7558
-	-	-	-	1	Cable Assy. (W230)	1214868-303	5995-01-440-7552
-	-	-	-	8	Screw	MS51958-61	5305-00-059-3657
-	-	-	-	8	Washer	MS35338-138	5310-00-933-8120
-	-	-	-	8	Washer	MS15795-808	5310-00-619-1148

Each site will be modified using a combination and quantity of the required kits. Each site and its required kit(s) are listed below:

Quantity of Kits:

<u>A</u>	<u>C</u>	<u>D</u>	<u>F</u>	<u>G</u>	<u>Site</u>	<u>A</u>	<u>C</u>	<u>D</u>	<u>F</u>	<u>G</u>	<u>Site</u>
-	1	2	-	1	Altus AFB, OK	1	-	-	-	-	Andersen AFB, GU
1	-	-	-	-	Columbus AFB, MS	1	-	-	-	-	Dover AFB, DE
1	-	-	-	-	Dyess AFB, TX	1	-	-	-	-	Vandenberg AFB, CA
1	-	-	1	1	Eglin AFB, FL	1	-	-	-	-	Beale AFB, CA
1	-	-	-	-	Cannon AFB, NM	1	-	-	-	-	Maxwell AFB, AL
1	-	-	-	-	Ft Campbell, KY	1	-	-	-	-	Ft Hood, TX
1	1	-	-	-	Ft Polk, LA	1	-	-	-	-	Ft Rucker, AL
1	-	-	-	-	Ft Drum, NY	1	-	-	-	-	Holloman AFB, NM
1	-	-	-	-	Laughlin AFB, TX	1	-	-	-	-	Minot AFB, ND
1	-	-	-	-	Moody AFB, GA	1	-	-	-	-	Edwards AFB, CA
1	1	-	-	-	Robins AFB, GA	1	-	-	-	-	Vance AFB, OK

5.1.2 Action Required on Items in Stock. Not applicable.

5.1.3 Kits/Parts/Materials Required to Modify Items in Stock. Not applicable.

5.1.4 Disposition of Removed and Replaced Parts/Materials. Not applicable.

5.1.5 Drawings and Instructions Required. Not applicable.

5.1.6 Size and Weight of Kits/Parts/Materials.

<u>Kit</u>	<u>Size</u>	<u>Weight</u>	<u>Cost</u>
A	3 cubic feet	5 lbs	\$850
C	3 cubic feet	5 lbs	\$2965
D	3 cubic feet	5 lbs	\$800
F	5 cubic feet	10 lbs	\$3335
G	2 cubic feet	5 lbs	\$625

5.1.7 Disposition of Kits/Parts/Materials. Not applicable.

5.2 Personnel Information and Requirement. The personnel performing this task will have maintenance and test experience with the WSR-88D RPG. Two technicians are required to execute this procedure.

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<u>Work Phases</u>	<u>AFSC Skills</u>	<u>Man-Hours</u>
Unpacking	2E051	0.25
Disassembly	Not applicable	
Installation	2E051	2.5
Assembly	Not applicable	
Operational Check	2E051	1.25
	Total Man-Hours	4.0

5.3 Special Tools and Fixtures Required. Not applicable.

6. HOW WORK IS ACCOMPLISHED. Attachment 1: RPG Port Expansion Procedures  
Attachment 2: RPG Modem Test Procedures  
Attachment 3: Application Software Changes To  
Expansion Ports At The RPG

7. SUPPLEMENTAL INFORMATION.

7.1 Fuel System Defuel/Purge. Not applicable.

7.2 Operational Checkout Requirements. Not applicable.

7.3 Weight and Balance Information. Not applicable.

7.4 Technical Manuals Affected. Not applicable.

8. RECORDS.

8.1 Action Required on Maintenance Records.

- a. Air Force and Army sites update the AFTO Form 95 to show compliance.
- b. Air Force and Army sites report TCTO compliance in accordance with TO 00-20-2, Table 3-10, Rule 9.
- c. Navy and Marine Corps sites complete the appropriate sections of form OPNAV 4790/CK IAW OPNAVINSTN 4790-4B, Ships Maintenance and Material Management (3-M) Manual. Send the completed form to your Type Commander (TYCOM).
- d. Upon completion of attachment 4, mail, fax, or e-mail this information to the OSF.

(1) Mailing address:  
System Support Branch, Logistics Section  
WSR-88D Operational Support Facility  
Attention: Kim Hare  
3200 Marshall Ave, Suite 101  
Norman, OK 73072-8028

(2) Fax number:  
(405) 366-6553  
Attention: Kim Hare

(3) E-mail address:  
khare@osf.noaa.gov

8.2 Action Required on Supply Records. Not applicable.

8.3 Modification Markings. Not applicable.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

RONALD R. FOGLEMAN, General, USAF  
Chief of Staff

**Signed**

Edward L. Berkowitz, Chief  
System Support Branch  
WSR-88D Operational Support Facility  
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